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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,252	06/26/2003	Jing C. Chang	SO0023 US NA	4978

23906 7590 04/24/2006

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EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/607,252

Applicant(s)

CHANG ET AL.

Examiner

Mark Eashoo, Ph.D.

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28, 35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-8, 12-14 and 18-28 is/are rejected.
- 7) ☒ Claim(s) 2, 4, 9-11, 15-17, 35 and 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/06.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

The information disclosure statement filed 17-MAR-2006 fails to comply with 37 CFR 1.97(c) because it lacks a statement as specified in 37 CFR 1.97(e). It has been placed in the application file, but the information referred to therein has not been considered.

Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### *Claim Rejections - 35 USC § 102*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 7, 8, 12, 18, 21-23, and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2000-239927 (citations below are from the English translation).

JP 2000-239927 teaches the claimed process, comprising: providing two poly(trimethylene terephthalate) melts to a spinneret (example 1); altering/adjusting the intrinsic/limiting viscosity between two poly(trimethylene terephthalate) to about 0.1 (para. 14); spinning a bicomponent fiber (example 1); and side-by-side fibers (fig. 1); co-polymers of various co-monomers (pg. 3 and examples).

### *Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 3, 5, 6, 13, 14, 19, 20 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-239927 (citations below are from the English translation) in view of applicant's admitted prior art (see US 2004/0222544 A1).

JP 2000-239927 teaches the basic claimed process, comprising: providing two poly(trimethylene terephthalate) melts to a spinneret (example 1); altering/adjusting the intrinsic/limiting viscosity between two poly(trimethylene terephthalate) (para. 14); spinning a bicomponent fiber (example 1).

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JP 2000-239927 does not teach adjusting the intrinsic/limiting viscosity by via a melt residence time or melt temperature. However, Official Notice is given that melt polymerization of poly(trimethylene terephthalate) is well known to increase the intrinsic/limiting viscosity until a certain level, then after time if the polymerization continues, the intrinsic viscosity will decrease. As such, a person of ordinary skill in the art would have found it obvious, if not intrinsic therein, to have optimized the melt residence time to stop the polymerization in order to achieve a desired degree of polymerization (ie. intrinsic viscosity). Furthermore, it is known to either make a large scale polymerizations and split it into multiple melt streams or simply perform multiple batches.

JP 2000-239927 does not teach sheath-and-core or island-in-the-sea shaped fibers. However, Official Notice is given that various fiber shapes including sheath-and-core or island-in-the-sea shaped fibers are well known in the art. Applicant's admission also states that sheath-and-core fibers are known (paras. 1-10). As such, a person of ordinary skill in the art would have found it obvious to have formed the fibers into these shapes, using the process of JP 2000-239927, in order to form a different fiber having different, but desired, physical properties.

JP 2000-239927 does not teach polyesters blended with other polymers or comprising small amounts of polyamides. Nonetheless, Official Notice is given that various polyesters blended with other polymers or comprising small amounts of polyamides are well known in the art. Applicant's admission also states various polyester blends are known (paras. 1-10). As such, a person of ordinary skill in the art would have found it obvious to have formed the fibers using these different materials, using the process of JP 2000-239927, in order to form a different fiber having different, but desired, physical properties.

#### ***Allowable Subject Matter***

Claims 2, 4, 9, 10, 11, 15-17 and 35-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach the instantly claimed process, as a whole, the melt spinning of a bicomponent fiber from two poly(trimethylene terephthalate) remelt systems wherein at least one of the remelt systems is operated to adjust/alter the inherent viscosity by at least about 0.03 dL/g.

#### ***Response to Arguments***

Applicant's arguments filed 17-FEB-2006 have been fully considered but they are not persuasive, because:

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A.) Applicant essentially argues that '927 is merely selecting two polyesters that have a limiting viscosity difference of no less than 0.1. However, the '927 specifically uses the phrase "a method to adjust the limiting viscosity differential" (emphasis added) and does not state 'selecting the limiting viscosity differential' as suggested by applicant. It is submitted that a reasonable interpretation of the '927 reference is that of a method of adjusting the limiting viscosity differential wherein the high and low viscosity side materials are mixed or combined with each other to "adjust" the limiting viscosity differential of each side or one side to form the desired limiting viscosity differential. Accordingly, the rejections are maintained.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.  
Primary Examiner  
Art Unit 1732

19 April 2006  
me

19 / Apr / 06